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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,402	07/18/2006	Jarkko Viinikanoja	879A.0110.U1(US)	2571
29683 7590 09/01/2009 HARRINGTON & SMITH, PC 4 RESEARCH DRIVE, Suite 202 SHELTON, CT 06484-6212			EXAMINER LE, QUANG V	
			ART UNIT 2622	PAPER NUMBER
			MAIL DATE 09/01/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,402	Applicant(s) VIINIKANOJA ET AL.	
	Examiner QUANG V. LE	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed on 5/14/2009.
2. **Claims 1-9 and 19-28** have been examined and are pending.

Response to Arguments

3. The following amendments to the claims are acknowledged:

Claims 10-18 were cancelled by the applicant.

Claims 1-9 and 19-27 were amended by the applicant.

Claim 28 was added by the applicant.

4. **Claim Objections:**

The examiner agrees with the applicant's argument regarding the Preliminary Amendment Claim filed on 7/18/2006 does not contain the reference numerals and the multiple dependencies. As such, the examiner withdraws the objections of claims 1-10, 12, 14, 15-19, 21, 26 and 27.

5. **Rejection of claims 1-3, 10-12, 19-21 and 26 under 35 U.S.C 103:**

Applicant's arguments regarding the rejections of claims 1-3, 10-12, 19-21 and 26 have been fully considered but are moot in view of the new ground of rejection.

Due to the missing prior art rejections of claims 4-9, 13-18 and 22-25 in the previous office action, therefore, this office action is made **Non Final**.

Priority

6. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Claim Objections

7. **Claims 1-9 and 19-27** are objected to because of the following informalities:
Claims 1-9 and 19-27 does not have the articles (a, an or the) at the beginning of each claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1-9, 19-26 and 28** are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa (US 6,549,650).

As per claim 1 (Currently Amended), Ishikawa teaches an electronic equipment comprising:

camera means configured to form data of an object located in an imaging direction, said camera means comprises at least two camera units **6701a** and **6701b**, which mutual position is configured to be adjusted to correspond to a determined imaging mode **stereoscopic view** (col 49, lines 36-43) and wherein the adjusting of the

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mutual position comprises turning of the camera units relative to each other by altering the mutual distance between the camera units, if the mutual position of the camera units do not correspond to the determined imaging mode (figures 55 and 56, col 48, lines 12-67 to col 49, lines 1-36)(*the image sensing units paralleling displaced is similar to altering the mutual distance between the camera units, and the rotating angle Φ in figure 55 represents the turning of the camera unit as cited in the claim*);

a processor **6704** configured to process the data formed by the camera means, according to the determined imaging mode of the equipment, in order to form image information (figure 44 and col 46, lines 46-54).

As per claim 2 (Currently Amended), Ishikawa teaches the equipment according to claim 1, Ishikawa further teaches wherein the mutual position of the camera units relative to each other is arranged to be altered by the camera units being manually moved by the user (col 49, lines 36-43). *The user moves the camera units by using the control button **7503**.*

As per claim 3 (Currently Amended), Ishikawa teaches the equipment according to claim 1, Ishikawa further teaches the equipment additionally includes a display component **73** arranged on one side of the equipment, wherein the camera units (**75a and 75b**) are arranged on the opposite side of the equipment relative to the display component (figures 12A, 12B and col 19, lines 21-30).

As per claim 4 (Currently Amended), Ishikawa teaches the equipment according to claim 1, Ishikawa further teaches wherein the camera units **1002** and **1003** are connected to each other (figure 36).

As per claim 5 (Currently Amended), Ishikawa teaches the equipment according to claim 1, Ishikawa further teaches wherein the processor **6704** is configured to manage the imaging modes (**stereoscopic view**) and to process according to the determined selected imaging mode (figure 44 and col 41, lines 18-45).

As per claim 6 (Currently Amended), Ishikawa teaches the equipment according to claim 1, Ishikawa further teaches wherein the processor **6704** is configured to form 3D image information (**stereoscopic view**) from the data formed by the camera means (figure 44 and col 41, lines 18-45). *The stereoscopic view is analogous to the three dimensional view (col 25, lines 24-37).*

As per claim 7 (Currently Amended), Ishikawa teaches the equipment according to Claim 6, Ishikawa further teaches wherein the processor **6704** is configured to process image errors (figure 51 and col 46, lines 34-54). *The deviation amount p is analogous to the image errors as cited in the claim.*

As per claim 8 (Currently Amended), Ishikawa teaches the equipment according to claim 1, Ishikawa further teaches wherein the processor is configured to

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combine the data formed by the camera means, at least partly to increase the resolution of the image information (col 29, lines 46-61). *The panoramic image resolution is higher than each of the two original images.*

As per claim 9 (Currently Amended), Ishikawa teaches the equipment according to claim 1, Ishikawa further teaches wherein the processor is configured to combine the data formed by the camera means, at least partly to permit a panorama-imaging mode (col 29, lines 46-61).

As per claim 19 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 1.

As per claim 20 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 2.

As per claim 21 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 3.

As per claim 22 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 6.

As per claim 23 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 7.

As per claim 24 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 8.

As per claim 25 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 9.

As per claim 26 (Currently Amended), this claim is rejected because it recites the subject matters that were previously discussed in claim 1.

As per claim 28 (New), this claim is rejected because it recites the subject matters that were previously discussed in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 27 is rejected under 35 U.S.C. 103(a) as being anticipated by Ishikawa as applied to claim 26 above, in view of Orimoto (US 7,102,686).

As per claim 27 (Currently Amended), Ishikawa teaches the camera module according to Claim 26, Ishikawa fails to explicitly disclose wherein an index patterning is arranged in the camera module, to lock the distance between the camera units to

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correspond to the determined imaging mode.

However, Orimoto teaches an image capturing apparatus having a plurality of image capturing modules that can be arranged to capture three-dimensional or panoramic images (abstract). From figure 1, in three-dimensional mode, the second camera **14** is connected to the first camera **12** through the guiding joints poles **32** and joint holes **24**. These guiding joints provide a fixed index patterning that lock the distance between the two camera units as cited in the claim.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to incorporate camera guiding joints as taught by Orimoto into Ishikawa camera module so that the camera units can be reconfigured quickly when the capture mode is switched.

Examiner's Note

The Examiner cites particular figures, paragraphs, columns and line numbers in the reference(s), as applied to the claims above. Although the particular citations are representative teachings and are applied to specific limitations within the claims, other passages, internally cited references, and figures may also apply. In preparing a response, it is respectfully requested that the Applicant fully consider the references, in their entirety, as potentially disclosing or teaching all or part of the claimed invention, as

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well as fully consider the context of the passage as taught by the reference(s) or as disclosed by the Examiner.

Conclusion

10. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure:

Bell, David A. et al. (US 20010026249 A1) Electronic device having a display

Mashitani, Ken et al. (US 20050089212 A1) Method and apparatus for processing three-dimensional images

Thielemans; Robbie et al. (US 6483555 B1) Universal device and use thereof for the automatic adjustment of a projector

Hirota; Gentaro et al. (US 6064749 A) Hybrid tracking for augmented reality using both camera motion detection and landmark tracking

SANO K (JP 2007135165 A) Double fold type digital camera has two binocular convex lens combined to single unit and LCD monitor which adjusts open angle according to distance of target

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang V. Le whose telephone number is (571) 270-5014. The examiner can normally be reached on Monday through Friday 8:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Nhan Tran can be reached on (571)272-7371. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quang Le/
Patent Examiner
Art Unit 2622

/NHAN T TRAN/

Primary Examiner, Art Unit 2622